REMARKS/ARGUMENTS

The Examiner is thanked for the review of the application.

In the specification, the paragraph at page 2 beginning at line 11 has been amended to include the serial number "09/999,079" of the co-pending application.

In the Office Action dated January 28, 2005, the Examiner objected to "the plurality of information disclosure statements which contain in excess of 100 references." A large number of these references were from three main sources; Related Art Searches, Search Reports and Office Actions from co-pending US, PCT and foreign patent applications that are also assigned to Demandtec, the assignee of this application. As a result, these references were filed as Information Disclose Statements in the present application.

Related Art Searches include Patentec Search for US Application Serial No. 09/849,616 entitled "Interface for Merchandise Price Optimization" (DT-0103) dated July 25, 2001, and Patentec Search for US Application Serial No. 09/741,958 entitled "Price Optimization System (DEM1P001) dated February 9, 2001. Search Reports include PCT International Search Report from Application Number PCT/US03/30488, mailed January 28, 2004 (Attorney Docket # DT-0204-PCT), PCT International Search Report from Application Number PCT/US02/36710, mailed July 21, 2003 (Attorney Docket # DEM1P009.WO), and PCT International Search Report from Application Number PCT/US02/14977, mailed May 5, 2003 (Attorney Docket # DT-0401-PCT).

Claims 1-24 remain in this application. Independent Claims 1, 14, 21-24 have been amended. New Claim 25, which is dependent on Claim 14, has been added. No new matter has been added nor claimed.

In the Office Action dated January 28, 2005 the Examiner rejected Claims 1-24 under 35 USC Section 103 as being unpatentable over Ouimet et al. (6094641) in view of Hartman et al. (5987425) and either Delurgio et al. (6553352) or Smith ("A General Bayesian Linear Model" (4/72).)

Regarding Claim 1, the Examiner has stated that "Ouimet et al. (See abstract, Figs. 1-6, Col. 2, lines 55-65, Col. 4, lines 35-60, claims 1, 12 and 21) disclose a means for optimizing the price of an item based on a selected demand model employing a grid (See Fig. 6) to set price in an automated fashion in a digital computer substantially as claimed. The differences between the above and the claimed invention is the use of a specific model and product subsets. It is noted that it is believed that the price is always determined for a subset of items which is functionally equivalent to the claimed limitations. Hartman et al. (See abstract, and Fig. 1) show product subsets which is the functional equivalent of a master serial number. Delurgio et al. (See abstract and claim 34) or Smith show Bayesian models employed in optimization of price (note that these are but a few of the cited references employing Bayesian models in price optimization.) It would have been obvious to the person having ordinary skill in this art to provide a similar arrangement for Ouimet et al. because of the suggestion to employ any demand model (col. 2, line 60) teaches that all models are conventional functional equivalents with respect to the claim limitations in price optimization."

Base Claim 1 as amended recites "designating a subset of products of the plurality of products... the subset being designated by solving an integer problem; and computer readable code for using the created demand model to optimize prices... wherein the optimization includes relaxation of constraints" (emphasis added). Support for the underlined limitations can be found in the Specification as filed on page 140, lines 21-24 and on page 139, lines 1-5, respectively. Since none of the cited references Ouimet '641, Hartman '425, and Delurgio '352 or Smith, alone or in combination, teach nor suggest these limitations, amended Claim 1 is now allowable over the references cited by the Examiner.

Regarding Claim 2, the Examiner has stated that the "subset limitations of claim 2, Delurgio et al. (Col. 11, lines 20-30) show subsets which are functional equivalents of the claim limitations." Regarding Claim 3, the Examiner has stated that the "selection limitations of claim 3, Delurgio et al. (Col. 11, lines 20-30) show product mix selection which is a functional equivalent of the claim limitations." Regarding Claim 4, the Examiner has stated that the "optimization limitations of claim 4, Ouimet et al. (See abstract, Figs. 1-6, Col. 2, lines 55-65, Col. 4, lines 35-60, claims 1, 12, and 21) disclose a means for optimizing the price of an item

based on a selected demand model employing a grid (See Fig. 6) to set price which are the functional equivalents of the claim limitations."

Regarding Claim 5, the Examiner has stated that the "data limitations of claim 5, Ouimet et al. (See abstract, Figs. 1-6, Col. 2, lines 55-65, Col. 4, lines 35-60, claims 1, 12, and 21) disclose a means for optimizing the price of an item based on a selected demand model employing a grid (See Fig. 6) to set price including prior price history which is a functional equivalent of the claim limitations." Regarding Claim 6, the Examiner has stated that the "data limitations of claim 6, Ouimet et al. (See abstract, Figs. 1-6, Col. 2, lines 55-65, Col. 4, lines 35-60, claims 1, 12, and 21) disclose a means for optimizing the price of an item based on a selected demand model employing a grid (See Fig. 6) to set price including prior price history which is a functional equivalent of the claim limitations."

Regarding Claim 7, the Examiner has stated that the "rule limitations of claim 7, Delurgio et al. (Figs. 14, 34-38) show rule criteria including a rule generator (elements 416-420) which is a functional equivalent of the claim limitations." Regarding Claim 8, the Examiner has stated that the "rule limitations of claim 8, Delurgio et al. (Figs. 14, 34-38) show rule criteria including a rule generator (elements 416-420) which is a functional equivalent of the claim limitations." Regarding Claim 9, the Examiner has stated that the "optimization limitations of claim 9, Ouimet et al. (See abstract, Figs 1-6, Col. 2, lines 55-65, Col. 4, lines 35-60, claims 1, 12, and 21) disclose a means for optimizing the price of an item based on a selected demand model employing a grid (See Fig. 6) to set price which are the functional equivalents of the claim limitations."

Regarding Claim 10, the Examiner has stated that the "data limitations of claim 10, Ouimet et al. (See abstract, Figs. 1-6, Col. 2, lines 55-65, Col. 4, lines 35-60, claims 1, 12, and 21) disclose a means for optimizing the price of an item based on a selected demand model employing a grid (See Fig. 6) to set price including prior price history which is a functional equivalent of the claim limitations." Regarding Claim 11, the Examiner has stated that the "data limitations of claim 11, Ouimet et al. (See abstract, Figs. 1-6, Col. 2, lines 55-65, Col. 4, lines 35-60, claims 1, 12, and 21) disclose a means for optimizing the price of an item based on a selected demand model employing a grid (See Fig. 6) to set price including prior price history which is a functional equivalent of the claim limitations." Regarding Claim 12, the Examiner has stated that the "rule limitations of claim 12, Delurgio et al. (Figs. 14, 34-38) show rule

criteria including a rule generator (elements 416-420) which is a functional equivalent of the claim limitations."

Claims 2-13 are dependent on allowable Claim 1. Hence dependent Claims 2-13 are now all allowable for at least the same reasons discussed above for base Claim 1.

Regarding Claim 14, the Examiner has stated that "Ouimet et al. (See abstract, Figs. 1-6, Col. 2, lines 55-65, Col. 4, lines 35-60, claims 1, 12, and 21) disclose a method for optimizing the price of an item based on a selected demand model employing a grid (See Fig. 6) to set price in an automated fashion in a digital computer substantially as claimed. The differences between the above and the claimed invention is the use of a specific model and product subsets. It is noted that it is believed that the price is always determined for a subset of items which is functionally equivalent to the claimed limitations. Hartman et al. (See abstract, and Fig. 1) show product subsets which is the functional equivalent of a master serial number. Delurgio et al. (See abstract and claim 34) or Smith show Bayesian models employed in optimization of price (note that these are but a few of the cited references employing Bayesian models in price optimization.) It would have been obvious to the person having ordinary skill in this art to provide a similar arrangement for Ouimet et al. because the suggestion to employ any demand model (Col. 2, line 60) teaches that all models are conventional functional equivalents with respect to the claim limitations in price optimization."

Claim 14 as amended recites "designating a subset of products of the plurality of products ... the subset being designated by solving an integer problem; and optimizing prices for products ... wherein the optimization includes a relaxation of constraints" (emphasis added). Claim 14 is similar to allowable Claim 1 and hence is now also allowable over the cited references for at least the same reasons discussed above for Claim 1.

Regarding Claim 15, the Examiner has stated that the "subset limitations of claim 15, Delurgio et al. (Col. 11, lines 20-30) show subsets which are functional equivalents of the claim limitations." Regarding Claim 16, the Examiner has stated that the "selection limitations of claim 16, Delurgio et al. (Col. 11, lines 20-30) show product mix selection which is a functional equivalent of the claim limitations." Regarding Claim 17, the Examiner has stated that the "optimization limitations of claim 17, Ouimet et al. (See abstract, Figs. 1-6, Col. 2, lines 55-65, Col. 4, lines 35-60, claims 1, 12, and 21) disclose a means for optimizing the price of an item

based on a selected demand model employing a grid (See Fig. 6) to set price which are the functional equivalents of the claim limitations."

Regarding Claim 18, the Examiner has stated that the "data limitations of claim 18, Ouimet et al. (See abstract, Figs. 1-6, Col. 2, lines 55-65, Col. 4, lines 35-60, claims 1, 12, and 21) disclose a means for optimizing the price of an item based on a selected demand model employing a grid (See Fig. 6) to set price including prior price history which is a functional equivalent of the claim limitations." Regarding Claim 19, the Examiner has stated that the "data limitations of claim 19, Ouimet et al. (See abstract, Figs. 1-6, Col. 2, lines 55-65, Col. 4, lines 35-60, claims 1, 12, and 21) disclose a means for optimizing the price of an item based on a selected demand model employing a grid (See Fig. 6) to set price including prior price history which is a functional equivalent of the claim limitations." Regarding Claim 20, the Examiner has stated that the "rule limitations of claim 20, Delurgio et al. (Figs. 14, 34-38) show rule criteria including a rule generator (elements 416-420) which is a functional equivalent of the claim limitations."

Claims 15-20, which are dependent on Claim14, are all allowable over the cited references for at least the same reasons base Claim 14 is allowable, as discussed above for similarly amended base Claim 1.

Regarding Claim 21, the Examiner has stated that "Ouimet et al. (See abstract, Figs. 1-6, Col. 2, lines 55-65, Col. 4, lines 35-60, claims 1, 12, and 21) disclose a method for optimizing the price of an item based on a selected demand model employing a grid (See Fig. 6) to set price in an automated fashion in a digital computer substantially as claimed. The differences between the above and the claimed invention is the use of a specific model and product subsets. It is noted that it is believed that the price is always determined for a subset of items which is functionally equivalent to the claimed limitations. Hartman et al. (See abstract, and Fig. 1) show product subsets which is the functional equivalent of a master serial number. Delurgio et al. (See abstract and claim 34) or Smith show Bayesian models employed in optimization of price (note that these are but a few of the cited references employing Bayesian models in price optimization.) It would have been obvious to the person having ordinary skill in this art to provide a similar arrangement for Ouimet et al. because the suggestion to employ any demand model (col. 2, line 60) teaches that all models are conventional functional equivalents with respect to the claim limitations in price optimization."

Base Claim 21 now recites "designating a subset of products of the plurality of products ... the subset being designated by solving an integer problem, and optimizing prices for products in the subset of products ...wherein the optimization includes relaxation of constraints" (emphasis added). Since Claim 21 has been amended in a manner similar to independent Claim 1, base Claim 21 is also allowable for at least the same reasons Claim 1 is allowable over the cited references.

Regarding Claim 22, the Examiner has stated that "Ouimet et al. (See abstract, Figs. 1-6, Col. 2, lines 55-65, Col. 4, lines 35-60, claims 1, 12, and 21) disclose a signal means for optimizing the price of an item based on a selected demand model employing a grid (See Fig. 6) to set price in an automated fashion in a digital computer substantially as claimed. The differences between the above and the claimed invention is the use of a specific model and product subsets. It is noted that it is believed that the price is always determined for a subset of items which is functionally equivalent to the claimed limitations. Hartman et al. (See abstract, and Fig. 1) show product subsets which is the functional equivalent of a master serial number. Delurgio et al. (See abstract and claim 34) or Smith show Bayesian models employed in optimization of price (note that these are but a few of the cited references employing Bayesian models in price optimization.) It would have been obvious to the person having ordinary skill in this art to provide a similar arrangement for Ouimet et al. because the suggestion to employ any demand model (col. 2, line 60) teaches that all models are conventional functional equivalents with respect to the claim limitations in price optimization."

Amended Claim 22 recites "designating a subset of products of the plurality of products ... the subset being designated by solving an integer problem; and optimizing prices for products in the subset of products ... wherein the optimization includes relaxation of constraints" (emphasis added). Hence, Claim 22, which has similar limitations as Claim 1, is now allowable for at least the same reasons discussed above for base Claim 1.

Regarding Claim 23, the Examiner has stated that "Ouimet et al. (See abstract, Figs. 1-6, Col. 2, lines 55-65, Col. 4, lines 35-60, claims 1, 12, and 21) disclose a means including a database for optimizing the price of an item based on a selected demand model employing a grid (See Fig. 6) to set price in an automated fashion in a digital computer substantially as claimed. The differences between the above and the claimed invention is the use of a specific model and

product subsets. It is noted that it is believed that the price is always determined for a subset of items which is functionally equivalent to the claimed limitations. Hartman et al. (See abstract, and Fig. 1) show products subsets which is the functional equivalent of a master serial number. Delurgio et al. (See abstract and claim 34) or Smith show Bayesian models employed in optimization of price (note that these are but a few of the cited references employing Bayesian models in price optimization.) It would have been obvious to the person having ordinary skill in this art to provide a similar arrangement for Ouimet et al. because the suggestion to employ any demand model (col. 2, line 60) teaches that all models are conventional functional equivalents with respect to the claim limitations in price optimization."

Independent Claim 23 has been amended and recites "designating a subset of products of the plurality of products ... the subset being designated by solving an integer problem; and optimizing prices for products in the subset of products ... wherein the optimization includes relaxation of constraints" (emphasis added). As a result, Claim 23, which has been similarly amended as Claim 1, is also allowable over the cited references for at least the same reasons base Claim 1 is allowable.

Regarding Claim 24, the Examiner has stated that "Ouimet et al. (See abstract, Figs 1-6, Col. 2, lines 55-65, Col. 4, lines 35-60, claims 1, 12, and 21) disclose a method for optimizing the price of an item based on a selected demand model employing a grid (See Fig. 6) to set price in an automated fashion in a digital computer substantially as claimed. The differences between the above and the claimed invention is the use of a specific model and product subsets. It is noted that it is believed that the price is always determined for a subset of items which is functionally equivalent to the claimed limitations. Hartman et al. (See abstract, and Fig. 1) show product subsets which is the functional equivalent of a master serial number. Delurgio et al. (see abstract and claim 34) or Smith show Bayesian models employed in optimization of price (note that these are but a few of the cited references employing Bayesian in price optimization.) It would have been obvious to the person having ordinary skill in this art to provide a similar arrangement for Ouimet et al. because the suggestion to employ any demand model (col. 2, line 60) teaches that all models are conventional functional equivalents with respect to the claim limitations in price optimization."

Amended Claim 24 now recites "receiving from the server system a new set of optimization prices for a subset of the plurality of products which is less than the plurality of products, the subset being designated by solving an integer problem, wherein the optimization includes relaxation of constraints" (emphasis added). Because Claim 24 has been amended in a manner similar to Claim 1, independent Claim 24 is now also allowable for at least the same reasons discussed above for base Claim 1.

Claims 14-24 have also been rejected under 35 USC 101 by the Examiner "because the claimed invention is directed to non-statutory subject matter". Accordingly, independent Claims 14, 21-24 have been amended to include "computer-implemented" and hence base Claims 14, 21-24 and dependent Claims 15-20 should all be in compliance with Section 101.

New Claim 25 recites "wherein the integer problem is based on an objective function which includes a sum of a plurality of marginal product price values" (emphasis added). Support for this limitation can be found in the Specification as filed on page 140, lines 21 to page 141, line 3. No new matter has been added nor claimed.

Because Claim 25 is dependent on Claim 14, dependent Claim 25 is allowable over the references cited by the Examiner for at least the same reasons Claim 14 is allowable. In addition, since none of these cited references teaches nor suggests, alone or in combination, the limitation recited by Claim 25, Applicants believe new Claim 25 is also allowable for those additional reasons.

In sum, base Claims 1, 14, 21-24 have been amended and are now allowable. Claims 2-13 and 15-20 which are dependent on Claims 1 and 14, respectively, are all allowable for at least the same reasons Claims 1 and 14 are allowable. Hence, Examiner's rejection of Claims 2-13 and 15-20, are rendered moot in view of the amendment to independent Claims 1 and 14. Claim 25, which is dependent on Claim 14, has been added and is also allowable.

Applicants believe that all pending claims 1-25 are now allowable over the cited art and are also in allowable form and respectfully request a Notice of Allowance for this application from the Examiner. The commissioner is authorized to charge any fees that may be due to our Deposit Account No. 50-2766 (Order No. DEM1P008). Should the Examiner believe that a telephone conference would expedite the prosecution of this application, the undersigned can be reached at telephone number 925-570-8198.

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